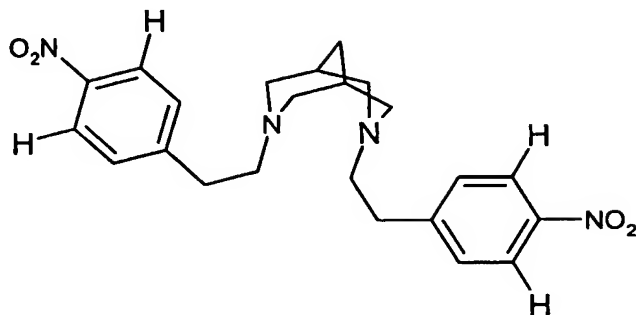


CLAIMS

1. A compound having Formula I or salts, hydrates or solvates thereof and comprising at least one radiolabel:

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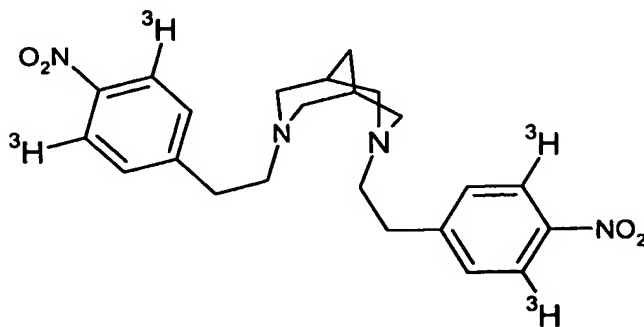


FORMULA I

2. A compound as claimed in claim 1 wherein the said compound comprises at least 1, 2 or 3 tritium substitutions in the meta position.

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3. A compound of Formula II:



FORMULA II

15

or salts thereof.

4. An assay for characterising the activity of a compound as an I_{K_r} channel blocker comprising the following steps:

- a) incubation of cell membrane containing the I_{K_r} channel in the presence of the compound of Formula II in the presence or absence of a test compound;
- b) determination of specifically bound labelled compound in the presence or absence of a test compound;
- 5 c) calculation of the inhibition of labelled compound binding by the test compound.

5. An assay as claimed in claim 4 comprising the steps of :

- a) preparing solutions of test compound at one or more concentrations;
- b) mixing the compound of Formula II with the cell membrane containing the I_{K_r}
10 channel;
- c) incubating the solutions of test compound with the mixture of compound of Formula II and cell membrane containing the I_{K_r} channel;
- d) isolating the membrane from the solutions and measuring the radioactivity of the membrane;
- 15 e) calculating the radioactivity of samples in the presence of test compound compared to a control in the absence of test compound.

6. An assay as claimed in claim 4 or claim 5 wherein the I_{K_r} channel is human ERG.

20 7. An assay as claimed in claim 6 wherein the cell membrane is derived from a cell line transfected with the human ERG gene.

8. An assay as claimed in claim 7 wherein the cell line is HEK.

25 9. Use of a compound of Formula II in an assay for characterising the I_{K_r} channel blocker activity of one or more candidate compounds.

10. A use as claimed in claim 9 wherein the assay is a competitive binding assay.

30 11. A process for preparing a compound of Formula II as defined in claim 3, said process comprising tritiating 3,7-Bis[2-(4-nitrophenyl)ethyl]-3,7-diazabicyclo[3.3.1]nonane in the presence of (1,5-cyclooctadiene)bis(methyldiphenyl-phosphine)iridium(I) hexafluorophosphate.

12. A process as claimed in claim 11 wherein the 3,7-Bis[2-(4-nitrophenyl)ethyl]-3,7-diazabicyclo[3.3.1]nonane and (1,5-cyclooctadiene)bis(methyldiphenylphosphine)iridium(I) hexafluorophosphate are dissolved in dichloromethane.

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13. A process as claimed in claim 11 or claim 12 wherein tritiation is carried out using a tritiation manifold.

14. A process for preparing a compound of Formula II substantially as described herein.

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